

Vessel / Voy: 0271

Yes

No

Comments

A. Charts

- Are large-scale charts selected for coastal waters? _____
- Are small-scale charts selected for ocean passages? _____
- Are voyage charts corrected up to week? 30/16 _____
- Are charts corrected for Navarea, NAVTEX warnings and Temporary & Preliminary Notices to Mariners? _____
- Are routeing, planning and pilot charts selected? _____

B. Publications

- Are sailing directions and pilot books available and corrected up to week? 30/16 _____
- Are light lists and radio signals available and corrected up to week? 30/16 _____
- Are tide tables and tidal currents available? _____
- Is port information or VTS requirements available? _____

C. Have the following been considered/checked?

- Planning charts and publications. _____
- Weather and Tidal conditions. _____
- Climatological information and navigational warnings. _____
- Navigation charts and publications for ship's routeing. _____
- Ship reporting systems and vessel traffic services. _____
- Bridge Procedures Guide. _____
- Bridge Team Management Guide. _____
- Voyage Planning Book general instructions. _____
- Vessel's departure and arrival drafts. _____
- Vessel's draft in relation to the available water depths. _____
- Effect of "Squat" on under keel clearance. _____
- Proper functioning of Navigation lights, Compasses, Radars and other electric/electronic bridge equipment. _____

D. Chart Information

Go-no go situations* and margins of safety. _____
* risk assessment as per RAM or ITIA will be required, in order to determine actions to be taken and whether vessel can proceed in case of abnormal or critical situations

- Plotted tracks and alternative or emergency tracks. _____
- Parallel indexes and wheel over points _____
- Abort positions or emergency anchorage available _____
- Is the Bridge Team aware of the Passage Plan? _____

Has the route been planned taking into account the marine environmental protection measures that apply, and avoids, as far as possible, actions & activities which could cause damage to the environment? _____

Checked by: CAPT. TUDOR CORFUS

Master: MT NEWLEAD GRANADINO

Guidance : To be completed for each voyage prior departure
 Distribution: Ship's files

Related Risk Assessments:

RA Navigation

Page 1 of 1

PASSAGE PLAN

COURSE CARD

M T " NEWLEAD GRANADINO "

Voyage plan : 027B

Zone:

From CURACAO PS

14

To: BALTIMORE PS

4

ROUTE #08

Total Dist:

1596,7 "

Steaming time at:

9.00 Kit

9.50 Kt

7 Dv

6 D

9.3 Hrs

23.9 Hrs

PASSAGE PLAN (Sea Passage)

Form No. N-138/00
Ship File: BS

PASSAGE PLAN (Sea Passage)

MIT NEWLEAD GRANADINO

EMMASTAD CURACAO

Distance Pilot To Pilot: 1,495.7 NM.

Vessel :	MIT NEWLEAD GRANADINO
From :	EMMASTAD CURACAO
Distance Pilot To Pilot:	1,495.7 NM.

Date : 30 Aug-2016
Voy No.: 027L
To : BALTIMORE, MARYLAND U.S.A.
Steaming Time: 177H 30M 9.5 KTS.

No	Reference Point	Wsp Point Lat	Long	We passed Date Time	Course to next Wsp	Distance to Wsp Mts	Distance To Go NM	Minimum Depth in Mtrs	Position Fixing Method	Position Fixing Intervals	Chart Nos	Remarks	
1	CURACAO PILOT	12.350N	68.575W	11/08/16 07:00Z	180.0	1495.7	452	1000' DEPTH, RECS	15mins	1412702		MAIN HAZARDS AND AREAS TO BE HIGHLIGHTED	
2	OFF CURACAO	12.400N	68.914W	11/08/16 07:00Z	180.0	508	1578.7	1000' DEPTH, RECS	30-60mins	21931986		AT ANCHOR LEAVING ENTERING	
3	NW CURACAO	12.220N	68.916W	11/08/16 07:00Z	180.0	343	1585.1	1220	1000' DEPTH, RECS	60 mins	40023689		FOR NAVIGATION AND SAFETY INFORMATION CALL FORT NASSAU PILOT
4	MONA PASS	18.35N	68.08W	11/08/16 07:00Z	010	378.1	1157	96	1000' DEPTH, RECS	60-120 mins	4724463		FLOAT ON VHF CH 12 / 16
5	NAVIDAD BANK	25.20N	68.3W	11/08/16 07:00Z	349	107.1	1070.9	230		30mins	2718		NO GO AREAS: MARKED ON CHART
6	OFF S.FARWAY	36.33N	75.2W	11/08/16 07:00Z	340	1043.2	35.7	20		30-60mins	2861		PARALLEL INDEX AND BEARING ON
7	EN. S.FARWAY	36.45N	75.443W	11/08/16 07:00Z	297	22	14.7	14		5mins	2918		EVERY WPT FREQUENCY POSITION FIXING
8	FAIRWAY	36.523N	75.518W	11/08/16 07:00Z	301	7	7.7	14		5-10mins	2920		MARKEED ON CHART UPON ENTERING
9	OFF P/S	36.568N	75.587W	11/08/16 07:00Z	317	5.5	1.8	13		5-10mins	2921		VSL MAY ENCOUNTER BAD WEATHER
10	BALTIMORE PS	36.57N	75.59W	11/08/16 07:00Z	276	1.9	26			5-10mins	2850		WHILE UNDERWAY TO GLAVANILLA PORT
													MANTAINED SECURITY LEVEL-1
													FOLLOW MASTER STANDING ORDER AND NIGHT ORDER GIVE WIDE BERTH TO MEETING AND CROSSING VESSEL AS WELL
													MEETING BOAT ALONG THE CARIBBEAN SEA & N ATLANTIC COAST
													CALL LARIBAR 2000 NOT ON VHF CH 16.07/14 P.O.B IN POSN LAT. 36.57N, 01.53 LONG. 075.59W

Nautical Pub. Last NM

Restrictions Notes

Draft

Signed

Chief Officer ARNOLD AGRISS
2nd Officer ROGELIO SALOVINO
3rd Officer LEN CAMPOSAGACO
Master

Sailing Draft: 3.01m
Arrival Draft: 5.01m
Air Draft: 23.98m
Squat (open): 0.60m
Ballast Water Exch. NO

Master

Light List: NP 82(J)
Sailing Dir: NP 7A, NP 63
Tide Table: NP 202 (2016)
Rad Nav Aids: NP 283(2)NP 286(3),NP 286(7)
Last NTM: WP 302015



卷之三

PASSAGE PLANS (prior passage)

Form No: 157 / Rev C1
SBD File: M9

Vessel:	NEW LEAD GRANADINE	
From:	BERTH	
Distance Earth To Pilot:	2.8 N MILES	

PASSAGE PLANS (prior passage)

Form No: 157 / Rev C1
SBD File: M9

卷之三

Restrictions-Notes

Draft

Nautilus

Light List: NP 82(3)	Sailing Dir: NP73, NP83, NP85	Depth: 16.9m	Passage Depth: 15.6m
Sailing Dir: NP73, NP83, NP85	Tide Table: NP203, NP212 (2015)	Breadth: 11.9m	Bridge Height: 3m
Tide Table: NP203, NP212 (2015)	Rad. Nav. Aids: NP 284(2), NP 286(5), NP 286(7)	Tide range: 0.2m-0.7m	Current: 0.1 kts max
Rad. Nav. Aids: NP 284(2), NP 286(5), NP 286(7)	Winds: Moderate	Waves: Moderate	Temperature: 18°C

Sailing Draft: 5.01 m
 Arrival Draft: 6.01 m
 Air Draft: 123.38 m
 Squat (confined): 1.33 m
 Ballast Water Each NO

Signed 
Chief Officer ARNOLD AGRIC
2nd Officer ROGELIO SALDIVAR
3rd Officer LEN CAMPOMASAGRADO
MASTER CART TUDOR CORFUS


NEWLEAD
PASSAGE PLAN (Pilot Passage)

Form No. 157 / Rev. 01

Ship File: M9

Vessel: NEWLEAD GRANADINO
From: PILOT STATION
Distance Pilot to Berth: 163.3 NMILES

No.	Reference Point	Ref Pt. Passed Time	Course to next Ref Pt.	Engine Status	Speeding in Kts	Predicted Current Kts	Easting Set/Off	Minimum Depth in Mtrs.	Position Fixing Intervals	Position Fixing Method	Position Fixing Intervals	Chart No/s	Remarks
PILOT STATION													
1	BOUY No. 24	335	0.8	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.1	0.0000	16	Position fix	Position fix	5mins	7.7	NAVIGATE W/ SITUATIONS APPROACHING ANCHORAGE AREA ONE WIDE BERTH TO VSL ENTERING/LEAVING FAMMASTAD ENTRANCE BULKY
2	BOUY No. 37	323	1.5	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.1	0.0000	16	Position fix	Position fix	5mins	7.7	
3	BOUY No. 1012	314	2.7	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.1	0.0000	16	Position fix	Position fix	5mins	7.7	
4	BOUY No. 1516	323	3.6	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.1	0.0000	15	Position fix	Position fix	5mins	7.7	
5	BOUY No. 22	320	6.5	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.1	0.0000	15	Position fix	Position fix	5mins	7.7	PORT OPERATE CRANE STUNTER TO CHECK PARALLEL INDEX AND METHOD OF THE FREQUENCY INTERVAL POSITION FIXING
6	BOUY No. 28	322	8.2	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.2	0.0000	15	Position fix	Position fix	5mins	7.7	DEVI POINT CONTINGENCY ENERGY ANCHORAGE MARKED WHEEL OVER ON CAST
7	BOUY No. 30	006	6.7	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.2	0.0000	15	Position fix	Position fix	5mins	7.7	Maintained security 1
8	BOUY No. 3748	017	6.3	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.4	0.0000	15	Position fix	Position fix	5mins	7.7	
9	BOUY No. 462	020	6.5	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.5	0.0000	15	Position fix	Position fix	5mins	7.7	
10	BOUY No. 472	261	7.4	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.6	0.0000	15	Position fix	Position fix	5mins	7.7	
11	BOUY No. 473	028	3.6	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.7	0.0000	15	Position fix	Position fix	5mins	7.7	
12	BOUY No. 475	603	2.4	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.8	0.0000	15	Position fix	Position fix	5mins	7.7	
13	BOUY No. 476	344	1.1	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.9	0.0000	15	Position fix	Position fix	5mins	7.7	
14	BOUY No. 477	320	10.6	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.10	0.0000	15	Position fix	Position fix	5mins	7.7	
15	BOUY No. 478	607	4.3	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.11	0.0000	15	Position fix	Position fix	5mins	7.7	
16	BOUY No. 512	614	6.5	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.12	0.0000	15	Position fix	Position fix	5mins	7.7	
17	BOUY No. 513	345	3.9	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.13	0.0000	15	Position fix	Position fix	5mins	7.7	
18	BOUY No. 527	328	3.8	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.14	0.0000	15	Position fix	Position fix	5mins	7.7	
19	BOUY No. 66	347	1.9	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.15	0.0000	15	Position fix	Position fix	5mins	7.7	
20	BOUY No. 710	357	6.2	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.16	0.0000	15	Position fix	Position fix	5mins	7.7	
21	BOUY No. 7213	248	3.4	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.17	0.0000	15	Position fix	Position fix	5mins	7.7	
22	BOUY No. 7214	350	2.4	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.18	0.0000	15	Position fix	Position fix	5mins	7.7	
23	BOUY No. 7215	613	2.5	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.19	0.0000	15	Position fix	Position fix	5mins	7.7	
24	BOUY No. 7219	348	7.6	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.20	0.0000	15	Position fix	Position fix	5mins	7.7	
25	BOUY No. 74	326	2.5	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.21	0.0000	15	Position fix	Position fix	5mins	7.7	
26	BOUY No. 74	334	7.3	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.22	0.0000	15	Position fix	Position fix	5mins	7.7	
27	BOUY No. 78	331	2.2	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.23	0.0000	15	Position fix	Position fix	5mins	7.7	
28	BOUY No. 78	626	2.2	Eng. AHEAD 14.000	Eng. AHEAD 14.000	NE0.24	0.0000	15	Position fix	Position fix	5mins	7.7	
29	BOUY No. 80												

30	BOUY BOUY No. C-2	360	4.2	F40.3 400.3 F40.3 400.3	NE0.33	NE0.25	F40.33	F40.33	Vessel Draft	5mtrs	7.7
31	BOUY No. C-2	337	1.4	F40.3 400.3 F40.3 400.3	NE0.33	NE0.28	F40.33	F40.33	Vessel Draft	5mtrs	7.7
32	BOUY No. C-2	602	5.3	F40.3 400.3 F40.3 400.3	NE0.33	NE0.27	F40.33	F40.33	Vessel Draft	5mtrs	7.7
33	BOUY BOUY No. C-2	014	5.4	F40.3 400.3 F40.3 400.3	NE0.33	NE0.28	F40.33	F40.33	Vessel Draft	5mtrs	7.7
34	BOUY BOUY No. C-2	306	2.8	F40.3 400.3 F40.3 400.3	NE0.33	NE0.29	F40.33	F40.33	Vessel Draft	5mtrs	7.7
35	BOUY BOUY No. C-2	017	3	F40.3 400.3 F40.3 400.3	NE0.33	NE0.29	F40.33	F40.33	Vessel Draft	5mtrs	7.7
36	BOUY No. C-2	330	1.6	F40.3 400.3 F40.3 400.3	NE0.33	NE0.31	F40.33	F40.33	Vessel Draft	5mtrs	7.7
37	BOUY No. C-2	344	2.9	F40.3 400.3 F40.3 400.3	NE0.33	NE0.32	F40.33	F40.33	Vessel Draft	5mtrs	7.7
38	BOUY No. C-2	360	2.8	F40.3 400.3 F40.3 400.3	NE0.33	NE0.33	F40.33	F40.33	Vessel Draft	5mtrs	7.7
39	BOUY No. C-2	351	0.6	F40.3 400.3 F40.3 400.3	NE0.34	NE0.34	F40.33	F40.33	Vessel Draft	5mtrs	7.7
40	BOUY No. C-2	534	1.3	F40.3 400.3 F40.3 400.3	NE0.35	NE0.35	F40.33	F40.33	Vessel Draft	5mtrs	7.7
41	BOUY No. C-2	330	2	F40.3 400.3 F40.3 400.3	NE0.35	NE0.35	F40.33	F40.33	Vessel Draft	5mtrs	7.7
42	BOUY No. C-2	337	0.7	F40.3 400.3 F40.3 400.3	NE0.37	NE0.37	F40.33	F40.33	Vessel Draft	5mtrs	7.7
43	BOUY No. C-2	292	3.5	F40.3 400.3 F40.3 400.3	NE0.38	NE0.38	F40.33	F40.33	Vessel Draft	5mtrs	7.7
44	BOUY No. C-2	314	0.6	F40.3 400.3 F40.3 400.3	NE0.39	NE0.39	F40.33	F40.33	Vessel Draft	5mtrs	7.7
45	BOUY No. C-2	321	4.1	F40.3 400.3 F40.3 400.3	NE0.40	NE0.40	F40.33	F40.33	Vessel Draft	5mtrs	7.7
46	BOUY BOUY	367	0.4	F40.3 400.3 F40.3 400.3	NE0.41	NE0.41	F40.33	F40.33	Vessel Draft	5mtrs	7.7

Nautical Pub Last NM

Restrictions Notes

Draft

Signed

Light List: NP 82(1)
Sailing Dir: NP73/NP9/NP68
Tide Table: NP202-1&2 (2015)
Rao Nav Aids: NP 203(2)NP
206(5), NP 286(7)
Last N.M.: WK30/2016

Minimum Passage Depth: 15.0m
Beam depth: 12m
Bridge Height/Clear: m
Tide range: 0.2m-0.7m
Current: 0.1 kts max

Sailing Draft: 8.01 m
Arrival Draft: 8.01 m
Air Draft: 12.99 m
Squat (Confined): 1.20 m
Ballast Water: Each NO

Chief Officer: ARNOLD AGRISS
2nd Officer: ROGELIO SALOVINO
3rd Officer: LEN CAMPOSAGRAO
Master: CAPT. TUDOR CORFLS



PASSAGE PLAN (Pilot Passage)

Form No. 157 / Rev 01

Ship File: MG

Vessel:	NEWLEAD
From:	SEA PILOT STATION
Distance Pilot to Anchorage:	19.4 N MILES

No	Reference Point	Ref Pt. Pressed	Course to next Ref Pt.	Distance to next Ref Pt. Time	Engines Starts	Speed in Kts	Predicted Current Kts	Estim. Drift	Minimum Depth in Mtrs	Position Fixing Method	Position Fixing Intervals	Undeclared Clearance in Mtrs	Chart Nos	Remarks
1	PILOT STATION			06.45 AM	0.5-5	NE0.1	NE0.1	NE0.1	15	POSITIONS, GPS	5mins	7.7		NAVIGATE WI CAUTION APPROACHING
2	BOUY No. 157/2		272	0.8	S. 34° 12' E. 11.4 Nds	0.5-5	NE0.1	NE0.1	17	POSITIONS, SATELLITE, GPS	5mins	9.7	2813	ANCHORAGE AREA GIVE WIDE BERTH TO VS. ENTERING LEAVING EMMASTAD ENTRANCE BUOY
3	BOUY No. 18		288	1.5	N. 34° 10' E. 11.4 Nds	0.5-5	NE0.1	NE0.1	17	POSITIONS, SATELLITE, GPS	5mins	9.7	2829	VS. ENTERING LEAVING EMMASTAD ENTRANCE BUOY
4	BOUY No. 22		256	2.7	S. 34° 09' E. 11.4 Nds	0.5-5	NE0.1	NE0.1	17	POSITIONS, SATELLITE, GPS	5mins	9.7		PORT OPERATE ECHO BOUNDER TO CHECK THE ACTUAL WPC OF THE VESSEL USE
5	OFF ANCHORAGE		325	3.6	EAST LARSEN	0.5-5	NE0.1	NE0.1	17	POSITIONS, SATELLITE, GPS	5mins	9.7		PARALLEL INDEX AND METHOD OF THE FREQUENCY INTERVAL POSITION FIXING
6	G.1 INNER ANCHORAGE		263	5.6	PORT LARSEN	2.5-3	NE0.1	NE0.1	17	POSITIONS, SATELLITE, GPS	5mins	9.7		A BORT POINT CONTINGENCY EMERGENCY ANCHORAGE MARKED WHEEL OVER ON CHART
7														MANTAINED SECURITY 1
8														
9														
10														
40														
41														
42														
43														
44														
45														
46														

Nautical Pub. Last NTM

Restrictions-Notes

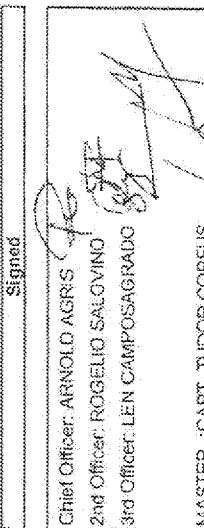
Draft

Signed

Light List : NP 82(d)
Sailing Dir: NP70,NP60,NP68
Tide Table: NP202-1&2 (2015)
Rad Nav Aids: NP 283(2)NP 286(5),NP 236(7)
Last NTM : WK30/2016

Minimum Passage Depth: 17.0m
Berth depth: 12m
Bridge Height Clean: m
Tide range: 0.2m-0.7m
Current: 0.1 kts max

Sailing Draft: 6.01 m
Arrival Draft: 5.01 m
Air Draft : 23.99 m
Squat (confined): 1.20 m
Ballast Water Ech. NO

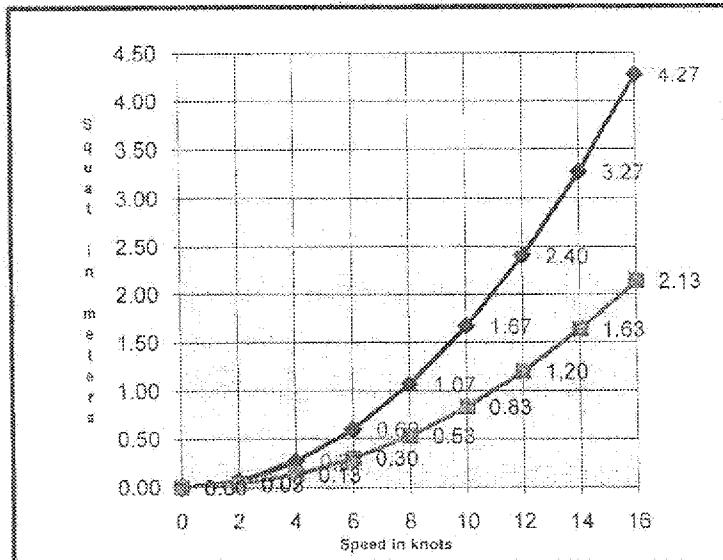
Chief Officer: ARNOLD AGRS
2nd Officer ROGELIO SALCINO
3rd Officer LEN CAMPOSAGRADO
Master : CAPT. TUDOR COREUS


NEWLEAD

**PASSAGE PLAN
SQUAT & UKC CALCULATIONS**

Form No: 158 / Rev 02

Ship File: M9

Vessel: MT NEWLEAD GRANADINO Voy: 027-L
Squat Graph

Date: 09-Sep-16
Kts

Squat in meters

Speed	Confined	Open
0	0.00	0.00
2	0.07	0.03
4	0.27	0.13
6	0.60	0.30
8	1.07	0.53
10	1.67	0.83
12	2.40	1.20
14	3.27	1.63
16	4.27	2.13

Vol Displ. 8576.00
Lpp: 105.50
B: 16.22
D: 6.01
Calculated C_B = 0.8339
C_B from table = 0.8339

Vessel's actual speed input

8.50 1.20 0.60

$$C_B = \frac{\nabla}{L \times B \times D} =$$

Calculated C_B = 0.8339

$$\text{Squat in meters confined} = \frac{2 \times C_B \times V^2}{100}$$

$$\text{Squat in meters open waters} = \frac{C_B \times V^2}{100}$$

Maximum Draft: 6.01 Transit Speed: 8.5 Kts

Calculated Squat: 1.20 Anticipated controlling depth: 15 M

Deepest Nav. Draft: 7.21 UnderKeel Clearance: 7.79 M

 ∇ is the volume of displacement, i.e Displacement in MT divided by the sea water specific gravity.

Lpp: is length between perpendiculars.

B: is the extreme breadth underwater.

D: is the mean draft corresponding to the actual displacement used in the formula.

C_B: Block Coefficient - V: Speed.

Confined waters: When the depth of the water is less than twice the vessel's draft.

Open waters: When the depth of the water is greater than twice the vessel's draft.

Deepest Nav. Draft: Maximum draft + Squat + wave height (where applicable)

Anticipated controlling depth: Minimum channel depth as per chart datum (charted depth) ± Tidal height

Underkeel Clearance: Anticipated controlling depth - Deepest Nav. Draft.

NOTES 1. Calculated C_B When you fill the values in the blue cells (H15,H16,H17&H18) the form will automatically calculate the C_B and the squat table.2. CB from Tables If you obtain the C_B value direct from the vessel's Hydrostatic Tables you may enter in the purple cell (H20) and the Squat table will automatically calculated.

3. After making due allowance for squat, water density and tidal height, the under keel clearance shall not be less than 1 metre. If under keel clearance of less than 1 metre is anticipated, approval shall be obtained from the Voyage Manager (FOPM 4.9.22).

References: FOPM 4.9.15, FOPM 4.9.22 & CFR 33 157.455

2/O ROGELIO SALOVINO

Prepared By:

CAPT. TUDOR CORFUS

Approved By: MASTER M/T NEWLEAD GRANADINO

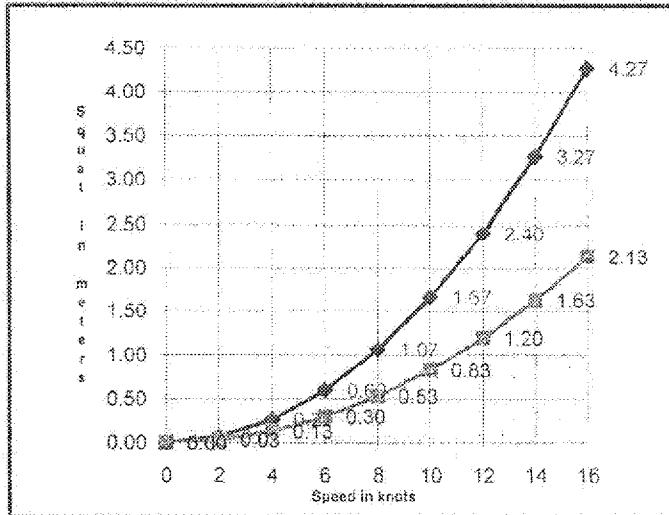
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NEWLEAD

**PASSAGE PLAN
SQUAT & UKC CALCULATIONS**

Form No: 158 / Rev 02

Ship File: M9

Vessel: MT NEWLEAD GRANADINO Voy: 027-L
Squat Graph


Date: Kts	Sep-16 Squat in meters	
Speed	Confined	Open
0	0.00	0.00
2	0.07	0.03
4	0.27	0.13
6	0.60	0.30
8	1.07	0.53
10	1.67	0.83
12	2.40	1.20
14	3.27	1.63
16	4.27	2.13
Vol Displ.	8576.00	
Lpp:	105.50	
B:	16.22	
D:	6.01	
Calculated C _B =	0.8339	
C _B from table =		0.8339
Vessel's actual speed input		
8.50	1.20	0.60

$$C_B = \frac{V}{L \times B \times D} =$$

Calculated C_B = 0.8339

Squat in meters confined = $\frac{2 \times C_B \times V^2}{100}$
waters

Squat in meters open waters = $\frac{C_B \times V^2}{100}$

Maximum Draft: 6.01 Transit Speed: 8.5 Kts

Calculated Squat: 1.20 Anticipated controlling depth: 15 M

Deepest Nav. Draft: 7.21 Underkeel Clearance: 7.79 M

 ∇ : is the volume of displacement, i.e Displacement in MT divided by the sea water specific gravity.

Lpp: is length between perpendiculars.

B: is the extreme breadth underwater.

D: is the mean draft corresponding to the actual displacement used in the formula.

C_B: Block Coefficient - V: Speed.

Confined waters: When the depth of the water is less than twice the vessels draft.

Open waters: When the depth of the water is greater than twice the vessels draft.

Deepest Nav. Draft: Maximum draft + Squat + wave height (where applicable)

Anticipated controlling depth: Minimum channel depth as per chart datum (charted depth) ± Tidal height

Underkeel Clearance: Anticipated controlling depth - Deepest Nav. Draft.

NOTES 1. Calculated C_B When you fill the values in the blue cells (H15,H16,H17&H18) the form will automatically calculate the C_B and the squat table.2. CB from Tables If you obtain the C_B value direct from the vessels Hydrostatic Tables you may enter in the purple cell (H20) and the Squat table will automatically calculated.

3. After making due allowance for squat, water density and tidal height, the under keel clearance shall not be less than 1 metre. If under keel clearance of less than 1 metre is anticipated, approval shall be obtained from the Voyage Manager (FOPM 4.9.22).

References: FOPM 4.9.15, FOPM 4.9.22 & CFR 33 157.455

2/O ROGELIO SALOVINO

Prepared By:

CAPT. TUDOR CORFUS

Approved By: MASTER MT NEWLEAD GRANADINO

RISK MANAGEMENT

Operation / Work activity being assessed:

Routine Non-routine

Generated by Vessel [] (read the name)
Code/number (it is been assigned by the Client)

Risk Assessment Conditions

Work Authorization	Work has been authorized	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
No Fatigue	Staff is adequately rested	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Use of proper PPE	Staff is using proper PPE	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
Experienced staff	Staff has task experience	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N

CONSEQUENCE CATEGORY

FREQUENCY CATEGORY		CONSEQUENCE CATEGORY		RISK LEVEL	FREQUENCY
Frequent: Possibility of repeating incidents	More often than once per voyage	Major pollution / Full scale response	Excessive high cost damage > \$100000		
5	Once per year	4 Human losses / Fatalities	Excessive cost of damage > \$100000	Moderate	1
4	Once per 5 years	3 Severe injury to personnel	Moderate cost of damage (\$10000 - \$100000)	Considerable	1
3	Once per 10 years	2 Number of minor injuries / Wounds	Little cost of damage (\$1000 - \$10000)	Significant	1
2	Once per 30 years or more	1 Few minor injuries	Minimum pollution / Little or no response needed	Low	1
1					

=Incredible Risk Medium= Tolerable Risk Low= Negligible Risk

Risk Assessment**Risk Analysis**

		Initial risk evaluation		
No	Hazard	Potential hazardous event	Existing control measures	
1	NAVIGATIONAL EQUIPMENT FAILURE ie STEERING GEAR FAILURE, MAGNETIC COMPASS / GYRO COMPASS ERROR, RADAR FAILURE etc.	PREPARATIONS FOR BOARDING AND DISEMBARKING PILOTS	REFERRED TO BRIDGE PROCEDURE'S GUIDE FORM CHAPTER 4, EMERGENCY PLAN BRIDGE TEAM MANAGEMENT, BRIDGE WATCH KEEPING PRE-DEPARTURE / PRE-ARRIVAL CHECKLIST REQUIRED AS NEEDED IN ANY OCCASION MUST CARRIED OUT AND COMPLETE ENTRY IN EACH FORMS BEFORE ANY SHIP MOVEMENTS REPORTS ANY UNACCEPTABLE CONDITION OF ALL NAVIGATIONAL EQUIPMENT RECTIFY AND/OR REPAIR FIRST THE FAILURE OR DEFECT BEFORE SAILING ALWAYS REMEMBER THAT THERE IS NO SECOND CHANCE TO REPAIR OR RECTIFY DEFECT EQUIPMENT FAILURE WHEN SERIOUS ACCIDENT	3 3 4

Risk Identification			Risk Analysis			Initial risk evaluation		
No.	Hazard	Potential hazardous event	Existing control measures	F	C	R		
		HAPPENED TEST AND CHECKED OF CRITICAL EQUIPMENT MUST BE DONE AS PER PLANNED MAINTENANCE SCHEME PRIOR DEPARTURE / ARRIVAL						
2	HEAVY TRAFFIC COLLISION/ALLISION	SIDS, TRIPS AND FALLS / ELECTROSTATIC HAZARD	REFERRED TO BRIDGE PROCEDURES GUIDE FOFM CHAPTER 4 EMERGENCY PLAN BRIDGE TEAM MANAGEMENT WATCH KEEPING NAVIGATE WITH CAUTION AT ALL TIMES FOLLOW CG REG AS FAR AS CONCERN AND PRACTICABLE, MAINTAINED BRIDGE WATCH KEEPING ARRANGEMENT IN EACH OCCASION AND CONDITION FOLLOW TRAFFIC LANE WHEN PASSING TRAFFIC SEPARATION SCHEME STRAIT OR CHANNELS COMMUNICATE TO OTHER SHIP TO KNOW THEIR INTENTION GIVE WHILE BERTH TO THE OTHER VESSEL WHICH IS RESTRICTED TO MANEUVER KEEP SAFE DISTANCE AND SAFE ACCEPTABLE CPA TO THE OTHER VESSEL FOLLOW AS PER MASTER STANDING NIGHT ORDER	3	3	4		
3	GROUNDING	MISPLACEMENT / FAILURE OF EQUIPMENT	REFERRED TO BRIDGE PROCEDURES GUIDE FOFM CHAPTER 4 EMERGENCY PLAN BRIDGE TEAM MANAGEMENT BRIDGE WATCH KEEPING RELEVANT PROCEDURES AND GUIDELINES TO VOYAGE PLANNING MUST FOLLOWED AND CARRIED OUT FOR EXAMPLE USE PARALLEL INDEX TO KEEP DISTANCE FROM NEAREST SHALLOWWATER OR DANGER AREA, USED OF AUTO TO MANUAL WHEN POTENTIAL HAZARD SITUATION ASSESSED OPERATE ECHO Sounder AS MARKED ON THE CHART FOLLOW UKC POLICY OF THE COMPANY VERIFY LATEST INFORMATION WITH REGARDS TO TIDE AND TIDAL STREAMS CHART MUST BE CORRECT AND UPDATE FOR THE INTENDED VOYAGE FROM THE LATEST NM AVAILABLE ONBOARD AND FROM LATEST NAVIGATIONAL AND METEOROGICAL WARNINGS RECEIVED FROM INMC AND NAVTEX AND MF/HF DSC BROADCAST REPORT ANY UNUSUAL WEATHER CHANGES TO THE MASTER FREQUENT POSITION FIXING TO MONITOR SHIP'S POSITION ON CHART / FOLLOW AS PER MASTER STANDING NIGHT ORDER	1	2	3		

Note E: Frequency, G: Consequence, R: Risk

ALTERNATIVE WAYS TO CONDUCT THE WORK
Nil

DATE: 10 AUG. 2014

Rev: 01

Prep.: MARINE

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Contingency plans (to facilitate safe management and recovery of the situation in case of any unplanned occurrences)	
Emergency case	Contingency Plans

Risk Management Team	Name	Rank / Title	Signature	Date
ARNOLD AGRISS	ARNOLD AGRISS	CHIEF OFFICER		30 AUG. 2016
Remarks:				

Risk Assessment reviewed/approved by	Name	Rank / Title	Signature	Date
TUDOR CORFUS	TUDOR CORFUS	MASTER		30 AUG. 2016
Remarks: All previously existed RA library re-evaluated, reviewed and approved in new format & newly established Electronic RA library as part of our SMS				

NOTES

- 1- Controlled document
- 2- This is an electronic form therefore not signed.
- 3- Uncontrolled if printed

DATE: 10 APR 2014

Rev: 01

Prep: MARINE

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Hazard No.	Additional Risk Control Measures	Risk Treatment	Responsible	Action Timeline			Residual risk evaluation
				F	C	R	
1	FURTHER ACTION NECESSARY TO CONTROL RISK						
2	FURTHER ACTION NECESSARY TO CONTROL RISK						
3	FURTHER ACTION NECESSARY TO CONTROL RISK						

Note F: Frequency, C: Consequence, R: Risk

Do any amendments to SMS required (related to the above Additional Risk Control Measures)?

Yes Describe:

No